



UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE

United States Patent and Trademark Office

Address: COMMISSIONER FOR PATENTS

P.O. Box 1450

Alexandria, Virginia 22313-1450

www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
-----------------	-------------	----------------------	---------------------	------------------

10/762,937

01/21/2004

Alexander G. MacInnis

17418US02

5694

23446

7590

03/18/2008

MCANDREWS HELD & MALLOY, LTD

500 WEST MADISON STREET

SUITE 3400

CHICAGO, IL 60661

EXAMINER

BRIER, JEFFERY A

ART UNIT

PAPER NUMBER

2628

MAIL DATE

DELIVERY MODE

03/18/2008

PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary

Application No.

10/762,937

Applicant(s)

MACINNIS ET AL.

Examiner

Jeffery A. Brier

Art Unit

2628

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 24 January 2008.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 21-39 is/are pending in the application.
- 4a) Of the above claim(s) 35-39 is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 21-34 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO/CDC)
- 4) ☐ Interview Summary (PTO-413)
- 5) ☐ Notice of Informal Patent Application
- 6) ☐ Other: _____
- Paper No(s)/Mail Date _____

DETAILED ACTION

Continued Examination Under 37 CFR 1.114

1. A request for continued examination under 37 CFR 1.114, including the fee set forth in 37 CFR 1.17(e), was filed in this application after final rejection. Since this application is eligible for continued examination under 37 CFR 1.114, and the fee set forth in 37 CFR 1.17(e) has been timely paid, the finality of the previous Office action has been withdrawn pursuant to 37 CFR 1.114. Applicant's submission filed on 01/24/2008 has been entered.

Information Disclosure Statement

2. The information disclosure statement filed on 01/24/2008 has been considered and a copy of the PTO/SB/08A is enclosed with this office action. Regarding reference number A84 the name Lambrecht et al. has been lined through because US Patent No. 5,951,644 is to Creemer. The name Creemer is added to the PTO/SB/08A for reference A84. Lambrecht et al., US Patent No. 5,951,664, is cited on the enclosed PTO-892. Regarding references C12 and C27 page numbers have been added onto the PTO/SB/08A for these references to reflect the pages submitted by applicant and considered by the Examiner.

Response to Amendment

3. No amendments were filed on 1/24/2008. The 02/02/2006 amendment has been entered. In view of the 02/02/2006 amendment and the 08/17/2007 Appeal Brief at

Art Unit: 2628

pages 3-6 it is now clear that claims 21-34 (a system using a data structure for generating pixels and method of using data structure to generate pixels) and 35-39 (a display method of generating and sorting data structures to generate pixels) are directed to different subcombinations and that claims 21-34 correspond to originally examined claims 1-14 where claim 21 corresponds to claim 2/1 and where claim 28 corresponds to claim 9/8 and that claims 35-39 do not correspond to originally examined claims 15-20 since claim 17/15 claimed in claim 15 "instead of reading the pixels from memory" which is not claimed in claim 35.

4. Newly submitted (02/02/2006) claims 35-39 directed to an invention that is independent or distinct from the invention originally claimed for the following reasons:

claims 35-39 do not correspond to originally examined claims 15-20 since claim 17/15 claimed in claim 15 "instead of reading the pixels from memory" which is not claimed in claims 35-39.

Since applicant has received an action on the merits for the originally presented invention, this invention has been constructively elected by original presentation for prosecution on the merits. Accordingly, claims 35-39 withdrawn from consideration as being directed to a non-elected invention. See 37 CFR 1.142(b) and MPEP § 821.03.

Response to Arguments

5. Applicant's arguments in the Appeal Brief filed 08/17/2007 have been fully considered and are persuasive to overcome the 35 USC 112 first and second paragraph rejections.

At pages 4 and 5 of the Appeal Brief applicant corresponds "pixels of a single color" to page 28 line 12 to page 29 line 2. The Examiner also directs attention to page 25 line 24 to page 26 line 15 and page 30 lines 8-15. Thus, the claimed pixels of a single color are pixels of a single color format, such as RGB16, forming an image having a solid color.

At page 4, 5, and 9 of the Appeal Brief applicant corresponds "wherein the pixels for the graphics image including pixels of the single color are generated using the color indicating field by applying the single color to the corresponding one of the logical surfaces." to page 25 line 24 to page 26 line 3. The Examiner also directs attention to page 26 lines 5-15. It is clear from page 25 line 24 to page 26 line 15 a window's pixel is generated and then later blended with another window's pixel based upon the depth of the windows.

Applicant did not amend or argue claims 23, 24, 30, and 31, however, in view of table 1 of the specification at page 28 line 12 to page 29 line 2, the previous rejection of claims 23, 24, 30, and 31 under 35 USC 112 first and second paragraphs is withdrawn.

Applicant should note that if applicant pursues claim 35 then applicant should note that at line 8 "the pixels of the at least one graphics image" lacks antecedent basis in the claim.

In view of the clarification of the claims an obvious type double patenting rejection is set forth below.

Double Patenting

6. The nonstatutory double patenting rejection is based on a judicially created doctrine grounded in public policy (a policy reflected in the statute) so as to prevent the

Art Unit: 2628

unjustified or improper timewise extension of the "right to exclude" granted by a patent and to prevent possible harassment by multiple assignees. A nonstatutory obviousness-type double patenting rejection is appropriate where the conflicting claims are not identical, but at least one examined application claim is not patentably distinct from the reference claim(s) because the examined application claim is either anticipated by, or would have been obvious over, the reference claim(s). See, e.g., *In re Berg*, 140 F.3d 1428, 46 USPQ2d 1226 (Fed. Cir. 1998); *In re Goodman*, 11 F.3d 1046, 29 USPQ2d 2010 (Fed. Cir. 1993); *In re Longi*, 759 F.2d 887, 225 USPQ 645 (Fed. Cir. 1985); *In re Van Ornum*, 686 F.2d 937, 214 USPQ 761 (CCPA 1982); *In re Vogel*, 422 F.2d 438, 164 USPQ 619 (CCPA 1970); and *In re Thorington*, 418 F.2d 528, 163 USPQ 644 (CCPA 1969).

A timely filed terminal disclaimer in compliance with 37 CFR 1.321(c) or 1.321(d) may be used to overcome an actual or provisional rejection based on a nonstatutory double patenting ground provided the conflicting application or patent either is shown to be commonly owned with this application, or claims an invention made as a result of activities undertaken within the scope of a joint research agreement.

Effective January 1, 1994, a registered attorney or agent of record may sign a terminal disclaimer. A terminal disclaimer signed by the assignee must fully comply with 37 CFR 3.73(b).

7. Claims 21-34 are rejected on the ground of nonstatutory obviousness-type double patenting as being unpatentable over claims 1 and 3-7 of U.S. Patent No. 6,731,295. Although the conflicting claims are not identical, they are not patentably distinct from each other because these claims are broader versions of the above identified patented claims. A claim table corresponding the claims of this application with the claims of the patent follows.

application	US Patent No. 6,731,295
21, 28	1
22, 29	1
23, 30	3
24, 31	4
25, 32	5
26, 33	6
27, 34	7

Art Unit: 2628

A claim by claim comparison of claims 21-27 and 1, 3-7 follows.

Claim 21	US Patent No. 6,731,295 claim 1
<p>21. (New) A graphics display system comprising: a data structure memory; a graphics processor for processing graphics images to be displayed on a display;</p> <p>a data structure stored in the data structure memory,</p> <p>the data structure for defining a corresponding one of a plurality of logical surfaces on which the graphics images are arranged, at least one of the graphics images including pixels of a single color, the data structure comprising:</p> <p>a field indicating a relative depth of the corresponding one of the logical surfaces;</p> <p>a field indicating a location of the corresponding one of the logical surfaces on the display; and</p> <p>a field indicating a color of the corresponding one of the logical surfaces,</p>	<p>1. A data structure for representing graphics images arranged in logical surfaces to be displayed,</p> <p><i>See the first wherein clause of this claim for the corresponding claim limitation.</i></p> <p>each data structure describing a corresponding logical surface, the data structure comprising:</p> <p>a field indicating relative depth of the corresponding logical surface on a display;</p> <p>a field indicating an alpha value for the graphics image on the corresponding logical surface;</p> <p>a field indicating a location of the corresponding logical surface on the display;</p> <p>a field indicating a location in memory where graphics data for the corresponding logical surface is stored; and</p> <p>a field indicating a color of the corresponding logical surface,</p>

<p>wherein the pixels for the graphics image including pixels of the single color are generated using the color indicating field by applying the single color to the corresponding one of the logical surfaces.</p>	<p>wherein the data structure is copied from a first memory to a second memory and sorted with other data structures in the second memory according to the relative depth of the corresponding logical surface on the display and based on which data structure in the second memory has been processed on a current display line, and wherein at least one of the graphics images includes pixels having a single color, and</p> <p>wherein the pixels having the single color are generated at a display time using content of the color indicating field rather than previously stored in a graphics memory.</p>
---	---

Claim 22	US Patent No. 6,731,295 claim 1
<p>22. (New) The graphics display system of claim 21,</p> <p>wherein the data structure further comprises at least one of a field indicating an alpha value for the graphics image on the corresponding one of the logical surfaces,</p>	<p>1. A data structure for representing graphics images arranged in logical surfaces to be displayed, each data structure describing a corresponding logical surface, the data structure comprising: a field indicating relative depth of the corresponding logical surface on a display;</p> <p>a field indicating an alpha value for the graphics image on the corresponding logical surface;</p> <p>a field indicating a location of the corresponding logical surface on the display;</p>

<p>a field indicating a location in memory where the graphics image for the corresponding one of the logical surfaces is stored, or</p> <p>a field indicating a format of the graphics image to be displayed on the corresponding one of the logical surfaces.</p>	<p>a field indicating a location in memory where graphics data for the corresponding logical surface is stored; and</p> <p>a field indicating a color of the corresponding logical surface,</p> <p>wherein the data structure is copied from a first memory to a second memory and sorted with other data structures in the second memory according to the relative depth of the corresponding logical surface on the display and based on which data structure in the second memory has been processed on a current display line, and</p> <p>wherein at least one of the graphics images includes pixels having a single color, and wherein the pixels having the single color are generated at a display time using content of the color indicating field rather than previously stored in a graphics memory.</p>
--	---

<p>Claim 23</p> <p>23. (New) The graphics display system of claim 22,</p> <p>wherein the format of the graphics image is any one selected from a group consisting of YUV, RGB, CLUT and alpha-only formats.</p>	<p>US Patent No. 6,731,295 claim 3</p> <p>3. The data structure for representing graphics images arranged in logical surfaces for display of claim 2</p> <p>wherein the format of the graphics data to be displayed on the corresponding logic surface is selected from YUV, RGB, CLUT and alpha-only formats.</p>
---	--

Claim 24	US Patent No. 6,731,295 claim 4
24. (New) The graphics display system of claim 23,	4. The data structure for representing graphics images arranged in logical surfaces for display of claim 3
wherein the alpha-only format is a format in which the graphics image is represented in the memory by alpha values only.	wherein the alpha-only format is a format in which the graphics data represent alpha values only.

Claim 25	US Patent No. 6,731,295 claim 5
25. (New) The graphics display system of claim 21,	5. The data structure for representing graphics images arranged in logical surfaces for display of claim 1, the data structure
further comprising a field indicating a method of selecting an alpha value for each pixel in the graphics image on the corresponding one of the logical surfaces.	further comprising a field indicating a method of selecting an alpha value for each pixel in the graphics image on the corresponding logical surface.

Claim 26	US Patent No. 6,731,295 claim 6
26. (New) The graphics display system of claim 25,	6. The data structure for representing graphics images arranged in logical surfaces for display of claim 5
wherein the alpha value for each pixel is selected using chroma keying, CLUT alpha values, luminance (Y) values or a window alpha value.	wherein the alpha value for each pixel is selected using chroma keying, CLUT alpha values, luminance (Y) values or a window alpha value.

Art Unit: 2628

Claim 27	US Patent No. 6,731,295 claim 7
27. (New) The graphics display system of claim 22, wherein the alpha value contained in the field indicating the alpha value is applied to pixels of the graphics image on the corresponding one of the logical surfaces.	7. The data structure for representing graphics images arranged in logical surfaces for display of claim 1, wherein the alpha value contained in the field indicating the alpha value is applied to all pixels of the graphics image on the corresponding logical surface.

From the above comparisons it is clear that the pending claims are broader versions of the patented claims. Broader versions of patented claims are an obvious way for applicant to claim the same thing patented. *In re Vogel*, 422 F.2d 438, 164 USPQ 619, 623 (CCPA 1970).

Vogel stated on page 623:

"The answer to the second analysis question, therefore, is yes, and the claim is not allowable in the absence of a terminal disclaimer. The correctness of this conclusion is demonstrated by observing that claim 10, by reciting "meat," includes pork. It is further noted that viewing the inventions in reverse order, i.e. as though the broader claims issued first, does not reveal that the narrower (pork) process is in any way unobvious over the broader (meat) invention disclosed and claimed in the instant application."

Thus, this application's broader claims are not unobvious over the above identified patented claims and the patented claims anticipate the pending claims of this application.

Another relevant CAFC decision is *In re Braat* (CA FC 1991) 19 USPQ2d 1289.

Braat stated on page 1292:

"The following are excerpts from the Board's opinion: We agree with and sustain the rejection of claims 8, 9, 10, 13, 15, 16 and 17 on the basis of double patenting with respect to claims 5/1 and 6/1 of the Dil patent. The claims here being broader than claims 5/1 and 6/1 in the Dil Patent, the double patenting rejection is of the type created by the courts to prevent unjustified timewise extension of the right to exclude granted by a patent no matter how the exclusion [sic, extension] is brought about. See In re Van

Art Unit: 2628

Ornum, 686 F.2d 937, 214 USPQ 761 (CCPA 1982).” Braat also stated on page 1293 first full paragraph “*The only difference between the claims of Braat and claims 5/1 and 6/1 of Dil is the omission of the requirement in the claims of Dil of information areas having side walls which are angled at a particular angle, and we do not think that omission of such a limitation in the present case would constitute an unobvious modification.*”

Another relevant decision is *In re Goodman* 29 USPQ2d 2010. Goodman stated at page 2016:

“Appellant’s position could extend the term of the patent grant for many cases in a similar posture. By adopting the easy course of filing a continuation or divisional application to gain a narrow claim, a patentee could gain an extension of the term on a species when the broad genus later issued. This practice would extend the exclusionary right past the 17-year limit mandated by Congress. Under Supreme Court precedent, only one patent can issue for each patentable invention. *Miller*, 151 U.S. at 197. A second application -- “containing a broader claim, more generic in its character than the specific claim in the prior patent” -- typically cannot support an independent valid patent. *Miller*, 151 U.S. at 198; *See Stanley*, 214 F.2d at 153.

[4] Claim 12 and Claim 13 are generic to the species of invention covered by claim 3 of the patent. Thus, the generic invention is “anticipated” by the species of the patented invention. *Cf., Titanium Metals Corp. v. Banner*, 778 F.2d 775, 227 USPQ 773 (Fed.Cir. 1985) (holding that an earlier species disclosure in the *prior art* defeats any generic claim) ². This court’s predecessor has held that, without a terminal disclaimer, the species claims preclude issuance of the generic application. *In re Van Ornum*, 686 F.2d 937, 944, 214 USPQ 761, 767 (CCPA 1982); *Schneller*, 397 F.2d at 354. Accordingly, absent a terminal disclaimer, claims 12 and 13 were properly rejected under the doctrine of obviousness-type double patenting.”

Conclusion

8. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

Case, US Patent No. 5,315,698, teaches a data structure where different fields define different graphic parameters.

Abstract Text - ABTX (1):

In a computer graphics system, an address generator processes physical and virtual addresses using a common command set. A separate translator provides conversion from generated virtual addresses to physical addresses. The address generator formulates addresses as a function of distance from the origin of desired destination area in destination memory to the requested position in the destination area. A plurality of drawing graphics commands specify different raster drawing operations. A plurality of context graphics commands is used to define a desired context in which drawing graphics commands operate. The defined context includes destination location for resulting data, type and plane depth of graphics operations, foreground and/or background color of resulting data. Different parts of the context are changeable/redefinable independently of the other parts. The graphics commands have a format of multiple fields. Different fields specify different parameters. For each graphics command, the fields are arranged in order of common use of the corresponding parameter such that fields of less commonly used parameters are at an omissible end of the format. Thus, length of each graphics command varies as a function of parameters specified in the graphics command. A desired set of raster drawing commands delimited by a beginning indicator and an end indicator form a drawing unit.

Case, WO009304457A2, teaches a data structure where different fields define different graphic parameters.

ABSTRACT:

In a computer graphics system, an address generator processes physical and virtual addresses using a common command set. A separate translator provides conversion from generated virtual addresses to physical addresses. The address generator formulates addresses as a function of distance from the origin of desired destination area in destination memory to the requested position in the destination area. A plurality of drawing graphics commands specify different raster drawing operations. A plurality of context graphics commands is used to define a

desired context in which drawing graphics commands operate. The defined context includes destination location for resulting data, type and plane depth of graphics operations, foreground and/or background color of resulting data. Different parts of the context are changeable/redefinable independently of the other parts. The graphics commands have a format of multiple fields. Different fields specify different parameters. For each graphics command, the fields are arranged in order of common use of the corresponding parameter such that fields of less commonly used parameters are at an omissible end of the format. Thus, length of each graphics command varies as a function of parameters specified in the graphics command. A desired set of raster drawing commands delimited by a beginning indicator and an end indicator form a drawing unit. For clip list processing, a drawing unit is stored as a single occurrence in the system command buffer but functionally serves as a processing loop. Processing alternates between the drawing unit held in the command buffer and a clip list that specifies desired clip rectangles, the drawing unit being repeated for each clip rectangle.

Allowable Subject Matter

9. Claims 21-34 would be allowable if a proper terminal disclaimer is filed

Claim 21:

The prior art of record fails to teach or suggest in the context of claim 21 "a field indicating a color of the corresponding one of the logical surfaces, wherein the pixels for the graphics image including pixels of the single color are generated using the color indicating field by applying the single color to the corresponding one of the logical surfaces".

Claim 28:

The prior art of record fails to teach or suggest in the context of claim 21 "indicating, in the data structure, a color of the corresponding one of the logical surfaces; and generating the pixels of the single color for the at least one of the graphics images by applying the single color to the corresponding one of the logical surfaces using the color specified in the data structure".

10. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Jeffery A Brier whose telephone number is (571) 272-7656. The examiner can normally be reached on M-F from 7:30 to 4:00. If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Michael Razavi, can be reached at (571) 272-7664. The fax phone Number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

/Jeffery A. Brier/
Primary Examiner, Division 2628